

FIG. 1

20240906 010507

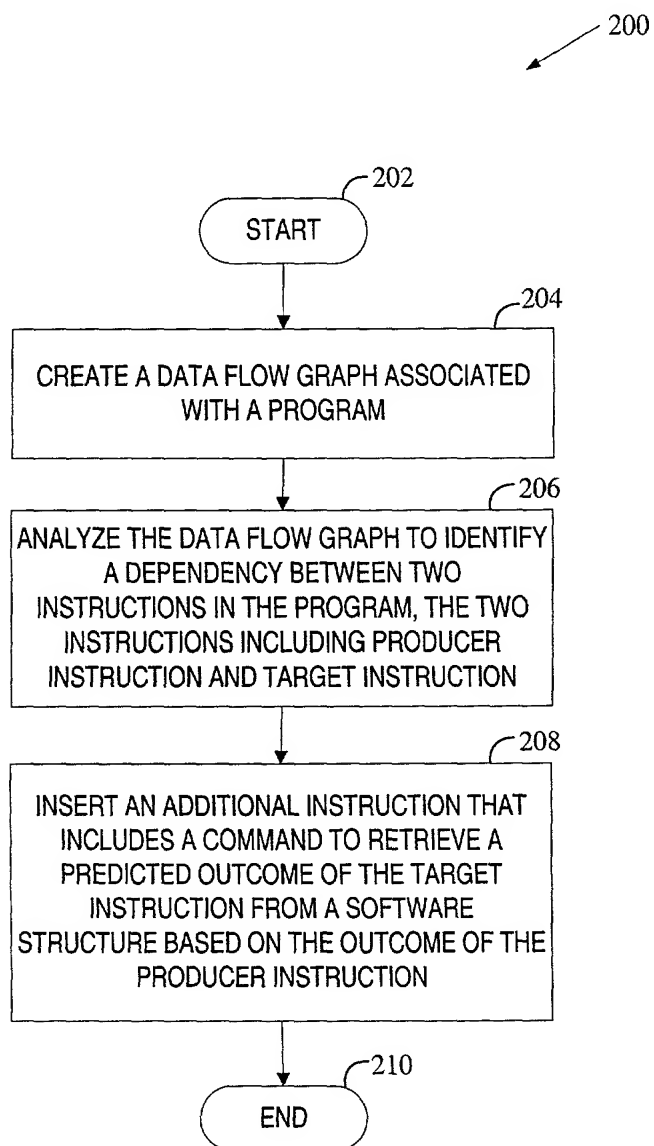
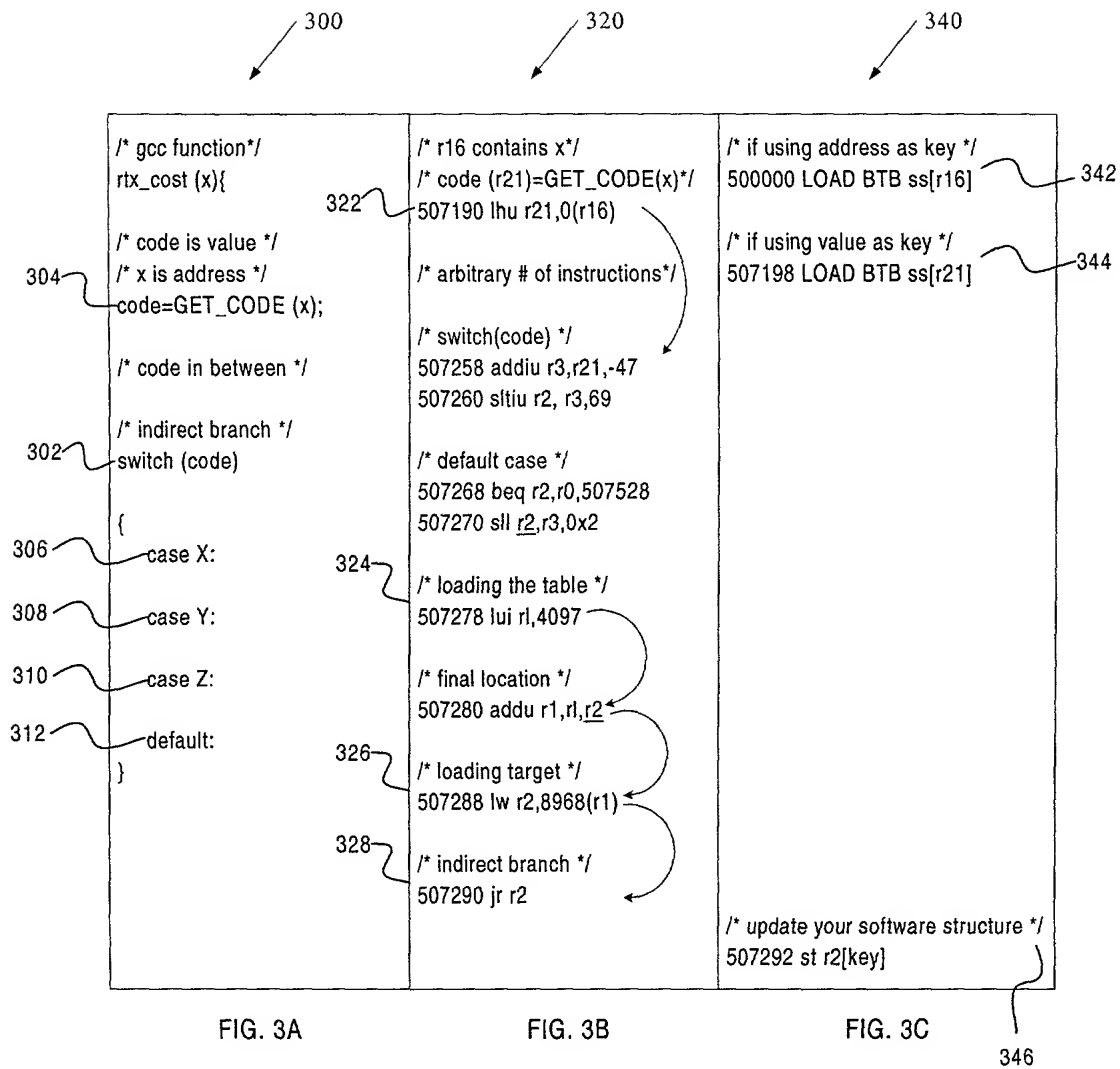


FIG. 2



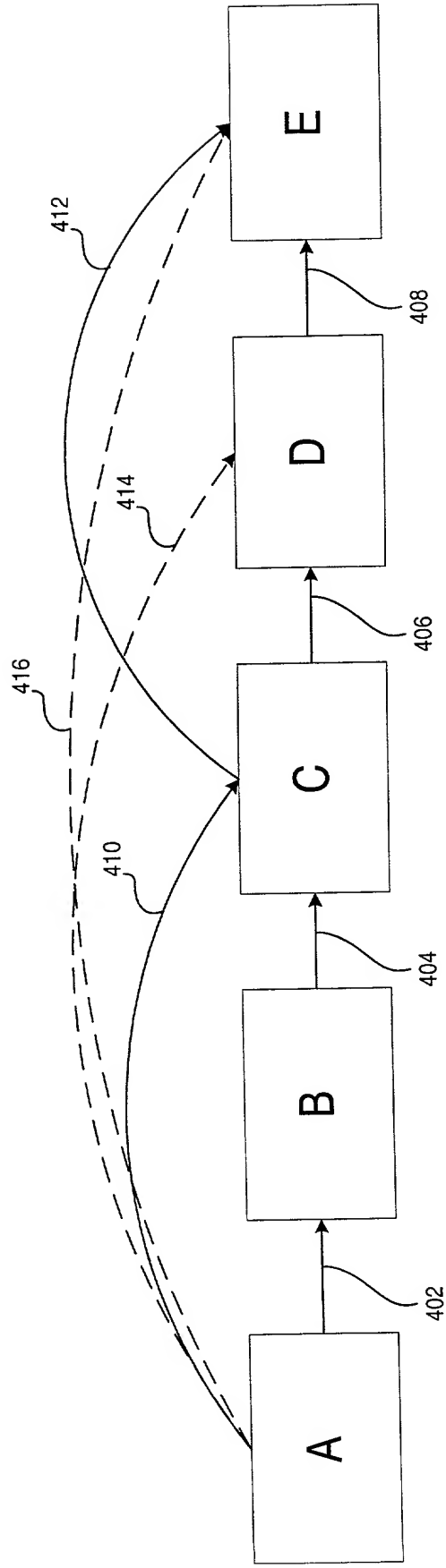


FIG. 4

ptr1

<pre>/* frequency execute "go" */ /* not fully complete here */ /* merge list1 into list2 */ /* each loop iteration is dependent on the previous iteration */  mrglist(int ptr1, int ptr2){ /* traversing the linked list */ while (ptr1 !=EOL){ /* use ptr1 */ ptr1=links[ptr1]; } }</pre>	<pre>mrglist: loop: if(ptr1 == EOL) goto end;  /* use ptr1 */ ptr1 = links[ptr1];  goto loop; end:</pre>	<pre>/* modernized pseudo-code */ /* update is not in code.... */ /* assume perfect bp */ mrglist: loop: if (ptr1 == EOL) goto end; /* use ptr1 */ /* MLP */ nextptr1 = links[ptr1]; specptr1 = ss[ptr1];  ptr1 = nextptr1; if (ptr1 == EOL) goto end; /* use ptr1 */ nextptr1 = links[ptr1]; if(nextptr1 == specptr1){ /* speculatively correct */ ptr1 = specptr1; }else{ /* speculatively incorrect */ ptr1 = nextptr1; } goto loop; end;</pre>
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FIG. 5A

FIG. 5B

FIG. 5C